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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,317	06/26/2001	Gayle L. Noble	8045150/JAS	1942

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EXAMINER

SORRELL, ERON J

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/892,317

Applicant(s)

NOBLE ET AL.

Examiner

Eron J Sorrell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

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DETAILED ACTION

Specification

1. Please update the specification with serial numbers and filing dates of the pending applications or patent numbers if the applications have so matured.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 13 is rejected under 35 U.S.C. 102(e) as being anticipated by Glover (U.S. Patent No. 6,282,045).

4. Referring to claim 13, Glover teaches a disk drive system comprising:

a signal-bearing medium for storing data (see figure 1 and paragraph bridging columns 4 and 5);

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a code memory means coupled to a read/write controller means for controlling the reading and writing of data to the signal bearing media (see figure 1 and paragraph bridging columns 4 and 5);

means for reading and writing the data to the signal bearing media (see figure 1 and paragraph bridging columns 4 and 5);

means for interfacing with a host device (see figure 1 and paragraph bridging columns 4 and 5);

a processor means coupled to the code memory means and the read/write controller comprising a program for transferring data from the media to the host device (see figure 1 and paragraph bridging columns 4 and 5).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strand et al. (U.S. Patent No. 5,991,824 hereinafter "Strand") in view of Wegeng et al. (U.S. Patent No. 5,528,375 hereinafter "Wegeng").

7. Referring to claim 1, Strand discloses a method of transferring data from a disc drive to a host device comprising:
providing data and a data structure from a peripheral device to a disc drive (see lines 29-44 of column 6);

interfacing the disc drive with a host output device (see items labeled 21,22, and 25 in figure 2 and lines 29-44 of column 6); and

transferring data from a disk drive to a host output device (see lines 15-28 of column 6).

Strand fails to teach determining a data transfer structure and storing the data transfer structure.

Wengeng teaches determining a data transfer structure and storing the data transfer structure (see lines 13-30 of column 3). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the method of Strand with the teachings of Wengeng such that the method comprises the steps of determining a data transfer structure and storing the data transfer structure. One of

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ordinary skill in the art would have been motivated to make such modification in order to transfer the data from the hard disk to the output device in a specified order according to the structure as suggested by Wegeng (see abstract).

8. Referring to claim 4, Strand teaches the host comprises a computer and a printer (see lines 1-18 of column 2).

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strand in view of Wegeng as applied to claim 1 above, and further in view of Glover.

10. Referring to claim 3, the combination of Strand and Wegeng fails to teach that the transferring of data comprises using a USB interface protocol.

Glover teaches the transferring of data comprises using a USB interface protocol (see lines 38-46 of column 5).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Strand and Wegeng such that the transferring of data comprises using a USB interface protocol. One of ordinary skill in the art at the time of the applicant's invention would have been motivated to make such modification because the USB

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protocol is widely used in the art and provides fast data transfers to and from the disk drive.

11. Claims 2,5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strand in view of Wegeng as applied to claim 1 above, and further in view of Hamamoto et al. (U.S. Patent No. 6,622,151 hereinafter "Hamamoto").

12. Referring to claim 2, the combination of Strand and Wegeng fails to teach the data structure comprising a file type and a file size.

Hamamoto teaches, in an analogous system, data structures comprising a file type and a file size (see lines 55-64 of column 3).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Strand and Wegeng with the teachings of Hamamoto such that the data structure comprises a file type and a file size. One of ordinary skill in the art would have been motivated to make such modification in order to provide different criteria for files to be stored and located.

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13. Referring to claims 5 and 6, Hamamoto teaches the determining of the data transfer structure comprises determining which data has been transferred to the host and comparing the data transfer structure to the data structure then transferring to the host, the difference between the data transfer structure and the data structure (see lines 29-43 of column 4).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Strand and Wegeng with the teachings of Hamamoto such that the determining of the data transfer structure comprises determining which data has been transferred to the host and comparing the data transfer structure to the data structure then transferring to the host, the difference between the data transfer structure and the data structure. One of ordinary skill in the art would have been motivated to make such modification in order to ensure only data that is scheduled to be transferred is transferred to the host.

14. Claims 7,10,11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strand in view of Hamamoto.

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15. Referring to claims 7, 11, and 12, Strand teaches a method of transferring data from a disc drive client to a host device comprising:

connecting a disc drive client device to a host device across an interface (see lines 35-59 of column 5);

wherein if the host device is not communicating to the disc drive client then aborting the transfer of data; and wherein if the disc drive client is responsive to the host device (see lines 35-59 of column 5; Note Strand discloses the devices must be coupled to the system in order to take part in a transfer operation); then

determining a disk drive client data structure (see lines 29-44 of column 6);

Strand fails to teach determining the file type and size stored on the disk drive client, determining the files transferred from the disc drive client to the host device, and comparing the disc drive client file structure to the files transferred to the host device to determine a data difference and transferring the data difference.

Hamamoto teaches, in an analogous system, determining the file type and a file size stored on the disk drive client (see lines 55-64 of column 3), and determining the files transferred from the disk drive client to the host device, and comparing the

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disk drive client file structure, which is a file allocation table, and the files transferred to the host device in a host data structure to determine a data difference and transferring the data difference (see lines 29-43 of column 4).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the method of Strand with the teachings of Hamamoto such that the determining of the data transfer structure comprises determining which data has been transferred to the host and comparing the data transfer structure to the data structure then transferring to the host, the difference between the data transfer structure and the data structure. One of ordinary skill in the art would have been motivated to make such modification in order to ensure only data that is scheduled to be transferred is transferred to the host.

16. Referring to claim 10, Strand teaches the host comprises a computer or a printer (see lines 1-18 of column 2).

17. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strand in view of Hamamoto as applied to claim 7 above, and further in view of Glover.

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18. Referring to claims 8 and 9, the combination of Strand and Hamamoto fails to teach the interface comprises a USB interface and the host device and device and disc drive client device comprise a 1394 interface.

Glover teaches a disk system wherein the interface comprises a USB interface (see lines 38-46 of column 5) and the host device and device and disc drive client device comprise a 1394 interface (see paragraph bridging columns 5 and 6).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Strand and Hamamoto with the teachings of Glover such that the teach the interface comprises a USB interface and the host device and device and disc drive client device comprise a 1394 interface. One of ordinary skill in the art at the time of the applicant's invention would have been motivated to make such modification because the USB protocol and the 1394 standard are widely used in the art and provides fast data transfers to and from the disk drive.

19. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glover in view of Strand and further in view of Hamamoto.

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20. Referring to claims 14,18, and 19, Glover fails to teach the program when executed by the processor means performs the steps of:

connecting a disc drive client device to a host device across an interface;

wherein in if the host device is not communicating to the disc drive client then aborting the transfer of data; and wherein if the disc drive client is responsive to the host device; then

determining a disk drive client data structure;

determining the file type and size stored on the disk drive client, determining the files transferred from the disc drive client to the host device, and comparing the disc drive client file structure to the files transferred to the host device to determine a data difference and transferring the data difference.

Strand teaches a method of transferring data from a disc drive client to a host device comprising:

connecting a disc drive client device to a host device across an interface (see lines 35-59 of column 5);

wherein in if the host device is not communicating to the disc drive client then aborting the transfer of data; and wherein if the disc drive client is responsive to the host

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device (see lines 35-59 of column 5; Note Strand discloses the devices must be coupled to the system in order to take part in a transfer operation); then

determining a disk drive client data structure (see lines 29-44 of column 6);

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Glover with the teachings of Strand such that the system of Glover incorporates the above listed teachings of Strand. One of ordinary skill in the art would have been motivated to make such modification in order to prevent transfers to target devices not currently responding to the host.

Hamamoto teaches, in an analogous system, determining the file type and a file size stored on the disk drive client (see lines 55-64 of column 3), and determining the files transferred from the disk drive client to the host device, and comparing the disk drive client file structure, which is a file allocation table, and the files transferred to the host device in a host data structure to determine a data difference and transferring the data difference (see lines 29-43 of column 4).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the

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combination of Glover and Strand with the teachings of Hamamoto such that the determining of the data transfer structure comprises determining which data has been transferred to the host and comparing the data transfer structure to the data structure then transferring to the host, the difference between the data transfer structure and the data structure. One of ordinary skill in the art would have been motivated to make such modification in order to ensure only data that has yet to be transferred is transferred to the host.

21. Referring to claims 15 and 16, Glover discloses the interface comprises a USB interface (see lines 38-46 of column 5) and the host device and device and disc drive client device comprise a 1394 interface (see paragraph bridging columns 5 and 6).

22. Referring to claim 17, Glover teaches the host device comprises a computer or a printer (see lines 31-37 of column 5).

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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The following references have been cited to further show the state of the art as it pertains to disk drive client interfaces:

U.S. Patent No. 6,094,707 to Sokolov et al.

U.S. Patent No. 6,349,351 to Shimizu et al.

U.S. Patent No. 6,128,717 to Harrison et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J Sorrell whose telephone number is 703 305-7800. The examiner can normally be reached on Monday-Friday 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on 703 308-3301. The fax phone number for the organization where this application or proceeding is assigned is 703 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-3900.

EJS
November 13, 2003



JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100